

CLAIMS

What is claimed is:

1. A printed circuit board assembly for a vehicle sensor comprising:
a printed circuit board;
a stiffener board including a first mounting portion attached to a vehicle structure and a second mounting portion attached to said printed circuit board wherein said stiffener board is positioned between said printed circuit board and said vehicle structure.
2. The assembly of claim 1 wherein said stiffener board is attached to said printed circuit board without fasteners.
3. The assembly of claim 2 wherein said stiffener board includes a generally flat main body portion with said second mounting portion extending transversely to said main body portion.
4. The assembly of claim 3 wherein said second mounting portion comprises a plurality of mounting feet extending outwardly from said main body portion toward said printed circuit board with each of said mounting feet being spaced apart from one another.
5. The assembly of claim 4 wherein said mounting feet are soldered to said printed circuit board.

6. The assembly of claim 3 wherein said first mounting portion comprises a plurality of tabs extending outwardly about the circumference of said main body portion with each of said tabs being fixed to said vehicle structure to provide sole attachment of said stiffener board and said printed circuit board to said vehicle structure.
7. The assembly of claim 6 wherein said tabs each include an aperture and wherein said tabs are directly attached to said vehicle structure with a plurality of fasteners with one fastener being received in each one of said apertures.
8. The assembly of claim 1 wherein said printed circuit board includes at least one electrical component extending toward said stiffener board and wherein said stiffener board includes at least one gripping element for engagement with said electrical component to securely hold said electrical component in place.
9. The assembly of claim 1 wherein said stiffener board includes a transversely extending electromagnetic interference wall positioned adjacent connector pins for said printed circuit board.
10. The assembly of claim 1 including a cover mounted along edges of said stiffener board to substantially enclose said printed circuit board between said cover and said stiffener board.

11. A vehicle sensor assembly for a safety restraint module comprising:
 - a printed circuit board supporting at least one sensor;
 - a stiffener board attached to said printed circuit board without fasteners, said stiffener board including a first mounting portion fixed to a vehicle structure and a second mounting portion attached to said printed circuit board wherein said first mounting portion provides for sole attachment of said printed circuit board and said stiffener board to said vehicle structure.
12. The assembly of claim 11 wherein said second mounting portion comprises a plurality of tabs spaced apart from each other along a main body portion, with each of said tabs including a mounting foot extending outwardly toward said printed circuit board.
13. The assembly of claim 12 wherein each mounting foot is soldered to said printed circuit board.
14. The assembly of claim 13 wherein said first mounting portion comprise a plurality radially extending tabs spaced about the circumference of said main body portion wherein each of said radially extending tabs includes an aperture for receiving a fastener.
15. The assembly of claim 11 wherein said printed circuit board includes at least one electrical component extending toward said stiffener board and wherein said stiffener board includes at least one aperture and a plurality of spring clips adjacent said aperture for resiliently engaging said electrical component to securely hold said electrical component in place.

16. The assembly of claim 11 wherein said sensor comprises an accelerometer that generates a crash signal that is transmitted to safety restraint control unit.

17. A method for securing a printed circuit board to a vehicle structure comprising the steps of:

(a) securing a stiffener board to a printed circuit board at a first mount interface without using fasteners; and

(b) mounting the stiffener board to a vehicle structure at a second mount interface that is different from the first mount interface.

18. The method of claim 17 including the step of providing sole attachment of said stiffener board and printed circuit board to the vehicle structure by fastening only the stiffener board to the vehicle structure at the second mount interface.

19. The method of claim 18 including the steps of forming mounting feet on the stiffener board and soldering the mounting feet to the printed circuit board to define the first mount interface.

20. The method of claim 17 including the step of bending an edge of the stiffener board to form an electromagnetic interference wall portion.